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accomplish this specialists have been allowed to concentrate their attention on a limited field of one or two cereals. The importance of practical trials, the use of hybridization, and some of the practical results are noted, as well as the fact that mutations do appear in cultivated plants; but the main point of the paper is the contribution made to the science of plant breeding by the method of pedigree culture originated at the Svälof station.—GEO. D. FULLER.

The case of *Oenothera*.—Probably no genus of plants has ever been the subject and the cause of so much investigation as *Oenothera*. It has become a storm center, and it is to be hoped that the result will be the clearing of an atmosphere which has become heavy with discussion. The latest contribution to this field of controversy is by SHULL,⁹ who suggests that *Oenothera* itself may be the occasion of the trouble, since "fundamental difficulties are encountered whenever attempts are made to apply to the *Oenotheras* rules of genetic behavior which are readily demonstrated in other groups of organisms." He concludes, for example, that *Oenothera* must have a hereditary mechanism fundamentally different from that which distributes the Mendelian unit characters.

In connection with the results of breeding experiments reported on in the present contribution, SHULL is convinced that certain conclusions reached by GATES regarding the origin and genetic nature of the *rubricalyx* character are erroneous, a character which the former has found behaving in various perplexing ways. The conclusions objected to are that the character represents a purely quantitative difference from *O. rubrinervis*; that it differs from the latter species in a single monohybrid Mendelian unit; and that the nature of a character itself, instead of the nature of the inheriting-mechanism to which it is related, determines the manner of inheritance of that character.—J. M. C.

Chromosomes and sex.—DONCASTER¹⁰ has continued his breeding experiments in the study of sex-inheritance in the currant moth. In a previous paper he had described a strain which in each generation produced females only and showed that the oogonia of this strain had 55 chromosomes instead of 56, the normal number in the species. The more recent studies confirm the results previously announced and add further interesting data. It is found that the tendency to produce only females "varies in intensity," ranging from equality of the sexes to complete absence of males. It was discovered that the eggs of females with 55 chromosomes in the oogonia have 28 in one polar equatorial plate and 27 in the other. The facts as a whole make it clear that eggs which eliminate the 28th chromosome produce females, while those which

⁹ SHULL, GEORGE HARRISON, A peculiar negative correlation in *Oenothera* hybrids. Jour. Genetics 4:83-102. pls. 5, 6. 1914.

¹⁰ DONCASTER, L., On the relations between chromosomes, sex-limited transmission, and sex-determination in *Abaxas grossulariata*. Jour. Genetics 4:1-21. pls. 1-3. 1914.